Applicants: Boyce-Jacind all

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AMENDMENTS

Please amend the above-identified application as follows:

IN THE SPECIFICATION

Please amend the specification as follows:

Please replace the sequence listing on file with the enclosed sequence listing.

IN THE CLAIMS

Please amend the claims as follows:

Please cancel claims 1, 2, 3, 21 and 22 without prejudice.

Please amend claims 4 and 17 to read:

 (Amended) A method for analyzing a sequence of a template, said method comprising;

(a) capturing the template with a sequencing reagent to form a captured template, said sequencing reagent comprising:

- i. a capture moiety;
- ii. a spacer region; and
- iii. a primer region, wherein said primer region is adjacent to said spacer region;
- (b) forming a primer polymerase complex, said primer-polymerase complex comprising said primer region and a polymerase;
- (c) scanning the captured template using said primer-polymerase complex for a region of complementarity to said primer region wherein said region of complementarity to said primer region is not adjacent to a region that is complementary to said spacer region;

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(d) extending the primer by at least two nucleotide moieties by means of a template-homology dependent extension reaction to form an extended primer; and

(e) detecting said extended primer, wherein detecting said extended primer indicates the presence of one or more regions of complementarity to the primer in the captured template.

17. (Amended) The method according to Claim 4 wherein the spacer region is at least 10 nm in length.

Please add the following claims 31 –34:

- 31. (New) The method according to Claim 27, wherein said change in mass is detected through mass spectrometry.
- 32. (New) The method according to Claim 4, wherein the steps of the method are repeated for an array of primer-polymerase complexes so that a pattern of signals is generated for the template.
- 33. (New) The method according to Claim 4, wherein said primer consists of from 4 to 6 bases.
- 34. (New) The method according to claim 4, wherein said spacer is between said capture moiety and said primer region.

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